

## Effects Of Social Networking Sites On Self- Regulated Learning Of Students At Secondary Level

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### Abstract

The rapid expansion of Social media use among students has encouraged researchers to determine the relationship between social networking site-use and students` self-regulated learning. The current study aims to find out the effects of social networking sites (SNS) on students` self-regulated learning (SRL), moreover the study hypothesized that academic engagement moderates the relationship between SNS and SRL with a mediating role accelerating students` academic engagement. The data was collected from 386 secondary school students of public sector with the help of simple random sampling technique. Data was analyzed through regression analysis. SNS and students' self-regulated learning are positively correlated, according to the study's findings, because they can provide students with a cooperative learning environment that supports educational activities such as discussion, material/resource sharing, interaction, participation engagement, and motivation. It unites people from many backgrounds to help them grow socially, pushes them to be involved socially, politically, and morally, and allows students to take a position for what they believe is right. Furthermore, the study shows that academic engagement plays a mediating role between self-regulated learning and SNS. Findings also suggest that the potential role of SNS and their use among students, demands for serious consideration among decision makers as it demonstrates that social networking sites benefit students' intellectual and social learning. The study proposes teachers to utilize social media as a teaching tool and students to be taught how to use it constructively.

**Keywords**— Self-Regulated Learning, Social Networking Sites, Students` Academic Engagement.

## INTRODUCTION

Social networking sites (SNSs) play a very important role in improving social interactions among students at Secondary level. According to researches SNS are mainly used for academic and official purpose other than for their personal use. Students utilize social networking sites to keep in contact with friends and family, convey significant life events and documents, express their ideas, thoughts and share their learning (Doleck et al., 2018). Students may interact using a text-based combination, audio, pictures, and videos on social networking sites, which is the primary mode of communication for today's digitally aware generation (Lemay et al., 2020). Chak & Leung (2004), stated that social networking has become a typical international trend that has extended across virtually each corner of the globe. Social media sites have exploded and changed into an internet platform wherever students make content and they share it, book mark it, and network at an exceptional rate. In 2015 a research was conducted by Owusu & Larson, which studied the relation between use of time, use social media and its impact on academic performance of the student. He found out that majority of the students have mobile phones, they have access to the internet, and they utilize many social media sites to extend learning. Furthermore, his study revealed that there is a strong positive relation between social media and academic performance. It suggested that although using social networking sites for academic reasons improves students' self-regulated learning (Eid & Al-Jabri, 2016), students are engaged in social networking sites for their personal use which automatically regulates their learning (Giunchiglia et al., 2018).

Self-regulation and self-control over one's own learning activities, such as preparing for an assignment and tracking actions to fulfill goals, are examples of self-regulated learning. According to the research, young students use multitasking and time displacement methods to balance demands such as academic works and social networking sites (SNSs) (Doleck et al., 2018). The frequent tendency of using SNSs among secondary school students motivated author to explore the association between SNSs and students' self-regulated learning (Giunchiglia et al., 2018; Lau, 2017). Researches on the previous studies found a positive association between students' self-regulated learning and the use of SNSs, however, this research is unique in its nature that it will find the mediating role of students' academic engagement which interrupt the direct association of SNSs and students' self-regulated learning (Doleck et al., 2018). Students' academic engagement is a meta-educative concept that describes how students are involved and committed in their academic subjects (Skinner & Pitzer 2012). As SNSs have become such a significant element of the academic environment throughout the world (Doleck et al. 2018), it may also have an impact on students' academic engagement (Ifinedo, 2016). Therefore, researcher intended to find out the relationship between the uses of SNSs with students' self-regulated learning along with the mediating role of students' academic engagement.

Social networking sites (SNSs) have undeniably effected the lives of secondary school students all around the world (Lemay et al., 2020). These websites are applications that allow users to interact with each other through a platform that can be easily connected to new users and allow easy and quick social access. (Ellison et al., 2007(Obar & Wildman, 2015). These sites can be used to

disseminate personal information about work, family events, as well as keep users updated on world news through different pages and platforms. (Doleck et al., 2018). Secondary school students may interact using a text-based combination, audio, pictures, and videos on social networking sites, which is the primary mode of communication for today's digitally aware generation (Lemay et al., 2020). Researchers suggested that using social networking sites for academic reasons improves secondary school students' self-regulated learning and meta-cognitive awareness (Eid & Al-Jabri, 2016;). Students of universities are engaged in social networking sites their academic purpose which regulate their learning (Giunchiglia et al., 2018; Balıkçı, Aydın, Sönmez, Kalo, & Ünal-Aydın 2020). Self-regulation and self-control over one's own learning activities, such as completing research report and keeping track of our own actions to achieve goals and fulfill academic commitments are examples of self-regulated learning. According to research, students use multitasking and time displacement methods to balance demands such as academic works and use of SNS) (Doleck et al., 2018). The recurrent habit of using SNSs among secondary school students motivated author to explore the association between SNSs and students' innate learning (Giunchiglia et al., 2018; Lau, 2017). Researches on the previous studies found a positive association between students' self-regulated learning and the use of SNSs at secondary school level, however, this research is unique in its nature that it will explore the mediating role of students' academic engagement, which interrupt the direct association of SNSs and students' self-learning and usage of SNSs (Doleck et al., 2018). Students' academic engagement is a meta-educative concept that describes how students are involved and committed in their academic subjects (Skinner & Pitzer 2012). As SNSs have become such a significant element of the academic environment throughout the world (Doleck et al. 2018), so it may also have an impact on students' academic engagement (Ifinedo, 2016). Therefore, researcher aimed to find out the relationship between the uses of SNSs with students' self-regulated learning along with the mediating role of students' academic engagement.

### **Research Objectives**

Objectives of the study are as follows:

1. To explore the relationship between the students' use of SNSs and their self-regulated learning.
2. To find out the relationship between students' academic engagement with students' self-regulated learning.
3. To examine the role of students' academic engagement as a mediating variable between the uses of social networking sites and students' self-regulated learning.

### **LITERATURE REVIEW**

#### **Social Networking Sites (SNSs)**

According to Tafesse, (2020), participants use social networking platforms to initiate communication in which they get a chance to build their own profiles and view other people's unique profiles with a variety of content and data. User can establish contact with other users that are

publicly available. Moreover, users of SNS are able to use, produce, and connect with the content and stories of other users that are on their networks. Kaplan and Haenlein (2010) defined SNSs as “a group of internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of user generated content” (p. 60). The above definitions outline the freedom and power that SNS provide their users with regards to sharing, adapting, and initiating user developed content without any hindrances and other kinds of social networking connections enable users to detect other users' social connections, enabling and controlling social networking activity on the platforms (Ellison & Boyd, 2013).

SNS as a moderator can be used for diverse purposes which includes, societal, commercial, and educational use. In education, tools are provided by SNSs which enable interaction among students and faculty, and also between students themselves. Students share material, are able to find different sources, start academic discourse, find various learning articles and research on various topics of interest and resources. Furthermore, pages can be made of different classes on Facebook groups and google teams can be used to share course materials, slides and carry out discussions and prepare for assessments. Students can create groups according to specific courses or projects and easily discuss and share relevant academic sources. Similarly, teachers and professors can bond with their students effortlessly and update them about course activities and events, have access of students for sharing of reading materials and for various emergency announcements. It is time for educational institutes to acknowledge that SNSs are embedded in student lives and even add motivation and value to student learning, success rates, and self-esteem. SNSs have essentially relaxed internet environment, resulting in widespread acceptance and use by people from all walks of life (Ouiridi et al., 2014).

Ellison and Boyd's (2013) define “SNSs have three unique characteristics; first, social networking sites allow users to establish individually identifiable profiles that are animated by information provided by the user and the system”. Self-description pictures, users' biographic data, pictures, hobbies, timelines of activity, and other information provided by users and systems combine to encourage networking activities on these platforms (Zhang & Leung, 2015).

SNSs allows users to create relationships that others can see and follow. Users of social networking sites can form relationships that others can monitor. Users can identify other users' social connections through follower lists, friends-list, favourite sites, group memberships, and other types of social networking connections, allowing and controlling social networking activity on the sites. (Ellison & Boyd, 2013). According to Zhang and Leung (2015), the ability to navigate and monitor other users' connections is a unique characteristic of SNSs that is nearly unknown in other channels of communication. Users can read, upload, and interact with endless user-generated material created by their contacts on social media sites. (Kane et al., 2014).

Textual information is combined with pictures, emoticons, animations, videos, and other elements to generate content. Users interact and consume other users' material in addition to contributing their own, resulting in a dynamic, ongoing loop of sharing and interaction that is at the heart of social networking platforms' persistent attraction. Interactions on social networking sites are shaped by the

aforementioned three characteristics, as well as user objectives, attitudes, and sociocultural influences (Ellison & Boyd 2013).

### **SNS and Education**

It has been researched that college faculty is now encouraging students to use social media as a learning platform. From twitter to e-portfolios and v-logging student engagement is being stimulated through SNS even more. College students are also motivated to use this platform formally as well as informally. These collective efforts by both teachers and students are leading to more creative and collaborative projects that support critical thinking, discourse and management of content. This collective wisdom has the potential to possibly transform the face of education in the near future (Greenhow & Askari, 2017; Yu et al., 2020).

### **Self-regulated learning of the Students**

The concept of self-efficacy and social cognitive theory are the foundations of self-regulated learning (Nilson, 2013). Self-regulated learning is described as a student's capacity to participate in self-motivating and behavioral processes that promote goal attainment autonomously and proactively. (Zimmerman, 2000). More precisely, self-regulated learning may be viewed as a skill in which students must know how to create objectives, what is required to reach those goals, and how to actually achieve those goals. As a result, pupils must be motivated or pushed to achieve goals in order to self-regulate and guide their own actions (Kitsantas & Dabbagh, 2010). Self-regulated learning's motivating components assist pupils in persevering through challenging activities and resisting alternative, perhaps more appealing possibilities.

Self-regulated learning focuses on three components of learning autonomy: self-adjusted behaviors, self-evaluated outcomes, and self-generated objectives (Yu, 2012). However self-regulated learning from a social-cognition viewpoint is a behaviour which is achieved by psychological processes (Bandura 1986; Zimmerman 1989).

### **Social Networking Sites (SNSs) and Self-regulated learning**

An increasing number of scholars are focusing on the relationship between social networking and self-regulated learning. Earlier studies proved that social networking (SN) supports students learning and peer collaborations (Rennie & Morrison, 2013), and have direct impact on students' learning, growth, and accumulated result (Rennie & Morrison, 2013). Gewerc et al. (2016) noted that communal recognition and following by friends as well as strangers enhanced students' self-esteem, optimism with academic activities, and output through SNS activities. These research studied show how social networking improves self-administered learning in a variety of ways.

Lin et al. (2014) investigated how users' experiences influenced their social networking persistence using a self-regulation model of appraisal, emotional reaction, and coping response. These studies looked at how social networking impacts self-regulated learning in various methods, but not the size of the network or individual relationship-building factors. One possible explanation is that most prior

investigations were performed in a similar research environment with students who were already familiar.

Hypothesis 1: Students' self-regulated learning is favorably connected with their use of social networking sites.

### **Students' academic engagement and self-regulated learning**

Student's commitment and involvement in their studies is referred to as academic engagement in literature (Lam et al., 2012). Present researches utilize a broadly acknowledged definition of students' interest, which takes under consideration behavior, passion, and cognitive variables (Fredricks et al., 2004). Students who have strong behavioral engagement are as a rule committed to their scholastics and take an interest in both curricular and extra-curricular exercises. The emotional engagement of students about their universities as well as about their learning are considered at par to emotional attachment. (Furlong & Christenson 2008). The quantity and variety of cognitive methods pupils use, as well as their motivation in learning, are referred to as cognitive engagement (Furlong & Christenson, 2008).

Students' involvement in their studies improve their overall academic experiences as well as their personal growth (Janosz, 2012). Throughout the learning or problem-solving process, students can utilise self-regulation to plan, control, and manage their cognitive participation. Before beginning a learning assignment, students evaluate the work, set personal goals, and develop strategic plans. In order to attain their goals, self-regulated learners can plan which learning techniques to use (i.e., strategic planning) as well as set goals for the amount of mental work available for specific learning approaches (i.e., effort planning). The initial degree of intellectual engagement, which drives the conceptual and operational planning processes, is influenced by an individual's set goal. Students regulate and monitor the quantitative and qualitative features of metacognition (i.e., learning processes and related mental effort) while executing a task to reduce performance differences versus a goal state. They also determine whether the mix of learning strategies and mental effort is sufficient to attain the intended outcomes. Two pupils, for example, may do the same learning action yet differ in the level of mental hard work they put forth. If students feel that current levels of cognitive engagement for a certain type of learning method or quantity of committed mental effort are insufficient, they reconstruct the two characteristics of cognitive engagement for the next step of problem-solving. While SRL emphasizes regulating and monitoring processes in order to achieve learning objectives (Winne, 2019), the key concept of self-regulation of engagement in SRL is to optimize the goal-pursuing process by devoting an appropriate level of mental endeavor on various learning methods.

Hypothesis 2: Students' academic engagement is linked to their ability to self-regulate their knowledge.

### **The mediating role of students' academic engagement**

According to this study, student involvement mitigates the beneficial relationship between social networking site use and educational success among students. The flexibility of students' involvement supports the mediation approach (Furlong & Christenson, 2008). Students' involvement is more a function of the academic environment in which they are placed than a characteristic of the students themselves (Lam et al. 2012). Instructional components, campus infrastructure, peer behaviour, and technology use all contribute to the academic atmosphere of any institute. As a result, given that the academic environment has a major impact on students' academic engagement (Doleck et al. 2018; Fredricks et al., 2016; Ifinedo, 2016), it stands to reason that student involvement may act as a mediator between social networking site usage and educational achievement (Lemay et al., 2020).

Hypothesis 3: The favourable relationship involving social networking site usage of self-regulated learning, is facilitated by students' academic engagement.

### Conceptual Framework

Figure 1 represents the conceptual work which was designed with the help of literature

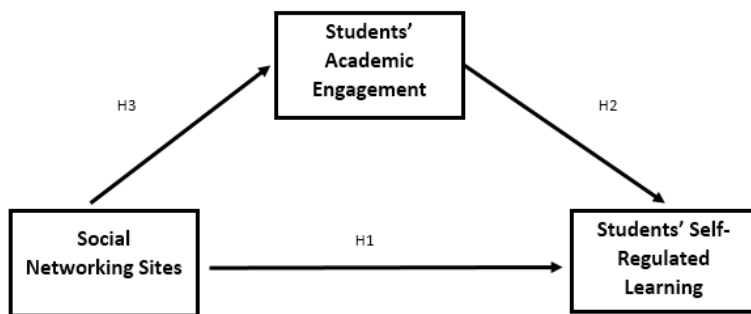


Fig. 1 Conceptual Framework

### RESEARCH METHODOLOGY

The research is quantitative and based on positivist philosophy. The primary data was gathered via survey method based on the distribution of questionnaires. The study's participants were secondary school students from Karachi. Simple random sample procedures were used to acquire the data. The study included 386 secondary school students of Karachi as participants. The survey has four sections: (a) demographics, (b) social networking site usage, (c) self-regulated learning, and (d) academic involvement of students. The amount of hours' students spends each day on the five most popular social networking sites such as WhatsApp, Facebook, Twitter, Instagram, and YouTube among students was used to calculate the social networking site measurement. Students were asked to choose one of nine response options to evaluate the amount of their daily social networking site use: "Less than 30 minutes a day," "One hour a day," "Two hours a day," "Three hours a day," "Four hours a day," "Five hours a day," "Six hours a day," "Seven hours a day," & "Eight or more hours a day." Self-regulated learning and students' academic engagement were measured on 10 point

Likert-scale from 1= “Strongly disagree” to 5 = “Strongly agree”. Self-regulated tool was adopted from Fredricks et al. (2016) and students’ academic engagement was adopted from Wang et al. (2016). A questionnaire was piloted for reliability and validity. Validity was ensured through expert opinion and reliability was calculated through Cronbach Alpha (0.941), which lies under the excellent level of reliability (Hair et al., 2011). The data was collected by using a survey questionnaire.

**TESTING OF HYPOTHESES**

Table 1 and table 2 represents the results of the hypotheses. Table 1 shows the association of SNSs with students’ self-regulation, and students’ academic engagement with students’ self-regulation. Significant results were found in both the cases. Positive association was found in between SNSs with students’ self-regulated learning ( $\beta = 0.229, p < .05$ ) which supports the hypothesis 1 that use of SNSs are positively associated with students’ self-regulated learning. Whereas, positive association was found in between students’ academic engagement with students’ self-regulation ( $\beta = 0.195, p < .05$ ) which supports the hypothesis 1 that use of SNSs are positively associated with students’ self-regulated learning which again supports the hypothesis 2 that students’ academic engagement is positively associated with students’ self-regulated learning. Table 2 shows the result of mediating variable, and significant result was found and beta value predict that students’ academic engagement plays a positive association in between SNSs and students’ self-regulated learning, which supports the hypothesis 3 that Students’ academic engagement positively mediates between the use of SNSs and students-self-regulated learning. Moreover, after controlling for students’ academic engagement, the direct effect of uses of SNSs on students’ self-regulated learning is statistically significant, it demonstrates full mediation (Hayes, 2013). As a consequence of the findings, the hypothesis 3 is supported. The variance accounted for (VAF) is 23.5%, which indicates the partial mediating effect (Hair et al., 2011).

**TABLE 1** Impact of SNSs on Students’ Self-Regulation

<b>Paths</b>	<b>Mean</b>	<b>Beta</b>	<b>T Statistics</b>	<b>P Values</b>	<b>Inf.</b>
SNSs -> SR	1.611	0.229	-2.553	0.011	Significant
SE -> SSL	3.78	0.195	2.213	0.027	Significant
Note: $p < 0.05$					

**TABLE 2** Impact of Students’ Engagement as mediating variables

<b>Paths</b>	<b>Beta</b>	<b>Direct Effect</b>	<b>Indirect Effect</b>	<b>Total Effect</b>	<b>VAF</b>	<b>Effect</b>	<b>Inf.</b>
SNSs -> SE -> SSL	0.11	0.347 p value (0.004)	0.107 p value (0.045)	0.454 p value (0.012)	23.5%	Partial Mediation	Significant



Note:  $p < 0.05$

## **DISCUSSION**

The study looked at the function of academic involvement in mediating the relationship between the use of social networking sites (SNSs) and secondary school students' self-regulated learning. Direct positive association was found in between the students' use of SNSs and their self-regulated learning which is also supported by Doleck et al. (2018). The result showed that students' academic engagement moderates the connection between the use of SNSs and students' self-regulated learning among secondary school students. Findings suggested that there is a possibility that the energy and time which secondary school students are spending on the use of SNSs with the academic engagement may increase their self-regulated learning. This hypothesis is compatible with the literature's timeframe displacement and multitasking arguments (Appel et al. 2020). It is based on the assumption that time is inflexible and daily human activities follow a 24-hour cycle that the time displacement concept is built upon. As a result, the addition of a new activity comes in replacement of the existing ones (Tokunaga, 2016). Time spent on social networking sites, according to the time displacement argument, is time shifted from critical academic duties like attending courses, studying, and completing assignments (Doleck et al., 2018). The multitasking hypothesis argues that secondary school students seek to pay attention to both academic engagement and social networking sites at the same time when presented with competing objectives. However, due to the cognitive load involved with multitasking, students who multitask are more likely to engage in poor-quality academic work (Lau, 2017). Moreover, findings suggested that students' academic engagement is positively associated with students' self-regulated learning (Lam et al., 2012). Previous study has shown that student academic engagement improves secondary school students' self-regulated learning by encouraging them to be more dedicated and productive in their studies (Janosz, 2012; Skinner & Pitzer, 2012). This study underlines the risk presented by growing usage of SNSs to students' overall self-regulated learning and personal development by including students' academic involvement as a mediator. As social networking sites have been linked to students' academic engagement, their frequent use may effect students' overall self-regulated learning (Kuh, 2009; Skinner & Pitzer, 2012).

## **Conclusion**

The goal of this study was to develop and test a model in which secondary school students' academic engagement regulates the link between their usage of SNSs and their self-regulated learning. The findings show how social networking sites have an indirect impact on secondary school students' self-regulated learning, which is mediated by their academic involvement. This finding indicates that increased usage of social networking sites may represent a danger to students' short-term self-regulated learning, as well as their long-term effects on their grades. In this study, one of the first attempts was made to validate the mediation role of students' academic involvement.

## **Implication and Recommendation**

This study presents some implications for current education practices and future research. First, it provides a new understanding of the value of social networking and shows its impacts on online self-regulated learning activities

Results suggest that educational leaders and policymakers should examine the role of SNS<sub>s</sub> (social media) in academic contexts. Secondary school students should be educated on managing and creating a more responsible social networking site habit. The present study relied on students' self-reporting to determine how often they use social networking sites on daily basis. Study results show that students tend to understate their use of social networking sites (Mican et al., 2020; Tafesse, 2020). Furthermore, the research used a combined and aggregated amount of daily social networking site usage, which means it can't address concerns at the granular level, such as how many people use Facebook regularly. Is Facebook, for example, more harmful to student involvement than YouTube? As a result, further study is needed to explore different SNSs individual association and differences in outcomes.

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